	1449			Docket Number 546322	000321	Application Nu	mber 09/646	,807
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			U.S. PAT	ENT DOCUMENTS				
T T	Ref. No.	Date .	Document No.	Name	Class	Subclass	Filing I Appro	
BW 1	1.	03/02/1993	US 5,190,931	Inouye				
BW 2	2.	05/04/1993	US 5,208,149	Inouye				
BW 3	3.	12/21/1993	US 5,272,065	Inouye et al.				
	4.	09/04/2003	US 2003/0165894 A	1 Waterhouse et al.				
Examiner	Ref.	Date	FOREIGN PA	ATENT DOCUMENT	rs Class	Subclass	Transl	ation
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BW 5	5.	02/01/2001	AU 729454	Australia				
1 1	6.	06/14/1995	EP 0465572B1	EP				
			WO 92/19732 WO					
	7.	11/12/1992	WO 92/19732	wo				
7	7. 8.	11/12/1992 01/20/1994	WO 92/19732 WO 94/01550	wo				
5				WO WO				
8	8.	01/20/1994	WO 94/01550	WO WO WO				
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5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	8. 9. 10. 11. 12. 13. 14.	01/20/1994 08/31/1995 11/27/1997 11/26/1998 09/30/1999 12/02/1999 08/03/2000 08/03/2000	WO 94/01550 WO 95/23225 WO 97/44460 WO 98/53083 WO 99/49029A1 WO 99/61631 WO 00/44895 WO 00/44914	WO				
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OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
BW	20.	Agrawal et al. (2003) "RNA Interference: Biology, Mechanism, and Applications" Microb. Mol. Bio. Rev. 67:657-685.
	21.	Agrawal et al. (1995) "Self-Stabilized Oligonucleotides as Novel Antisense Agents" pp 105-120.
	22.	Bahramian et al. (1999) "Transcriptional and Posttranscriptional Silencing of Rodent α1(I) Collagen by a Homologous Transcriptionally Self-Silenced Transgene" Molecular and Cellular Biology 19 (1) 274-283.
	23.	Bhan et al. (1997) "2',5'-Linked Oligo-3'-deoxyribonucleoside Phosphorothiate Chimeras: Thermal Stability and Antisense Inhibition of Gene Expression" Nucleic Acids Research 1 (16): 3310-3317.
	24.	Boldin et al. (1996) "Involvement of MACH, a Novel MORT1/FADD-Interacting Protease, in Fas/APO-1- and TNF Receptor-Induced Cell Death" Cell 85: 803-815.
	25.	Borecky et al. (1981-1982) "Therapeutic Use of Double-Stranded RNAs in Man" Tex Rep Biol Med 14: 575-581.
	26.	Braich et al. (1997) Regiospecific Solid-Phase Synthesis of Branched Oligonucleotides Effect of Vicinal 2',5'- (or 2',3'-) and 3',5'-Phosphodiester Linkages on the Formation of Hairpin DNA" Bioconjugate Chem 8: 370-377.
	27.	Carthew (2001) "Gene Silencing By Double-Stranded RNA" Curr. Op. Cell. Biol. 13: 244-248.
	28.	Cohli et al. (1994) "Inhibition of HIV-1 multiplication in a human CD4+ lymphocytic cell line expressing antisense and sense RNA molecules containing HIV-1 packaging signal and Rev response element(s)" Antisense Research and Development 4: 19-26.
	29.	Couzin (2002) "Small RNAs Make Big Splash" Science 298: 2296-2297.
	30.	Czauderna (2003) "Structural Variations and Stabiling Modifications of Synthetic siRNAs in Mammalian Cells" Nucleic Acids Research 31 (11): 1-12.
	31.	Doench et al. (2003) "siRNA Can Function as miRNAs" Genes and Development 17:438-442.
	32.	Elbashir et al. (2001) Functional Anatomy of siRNAs for mediating Efficient RNAi in Drosophila Melanogaster Embryo Lysate" The EMBO Journal 20 (23): 6877-6888.
	33.	Elbashir et al. (2002) "Analysis of Gene Function in Somatic Mammalian Cells Using Small Interfering RNAs" Methods 26: 199-213.
	34.	Fire et al. (1991) "Production of Antisense RNA Leads to Effective and Specific Inhibition of Gene Expression in C. Elegans Muscle" Development 113(2): 503-514.
BW	35.	Flavell, R. B. (1994) "Inactivation of Gene Expression in Plants as a Consequence of Specific Sequence Duplication" Proc. Natl. Acad. Sci., 91:3490-3496.

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

F	orm PTC)-144	19	Docket Number 546322000321	Application Number 09/646,807			
آنهار	ENPOL	RMA	TION DISCLOSURE CITATION	Applicant				
4	49		IN AN APPLICATION	Michael Wayne GRAH	AM and Robert Norman RICE			
	1 8 2004	녱	(Use several sheets if necessary)	Filing Date December 5, 2000	Group Art Unit 1636			
KOV		\mathcal{E}_{G}^{ij}		Mailing Date Nove	mber /2, 2004			
	E. VIAL MESS	7						
V	E.√J.L.B. BW	36.	Fraser et al. (1996) "Effects of c-myc f					
<u> </u>	- DW	37.	oocytes and early embryos of Xenopus Giordano et al. (2000) "RNAi Triggere					
		31.	Melanogaster" Genetics 160:637-648.	d by Symmetrically Transcri	bed Transgenes in Drosopinia			
		38.	Goff et al. (1997) "Analysis of Hoxd-1					
		39.		t Hox Genes Affect Both Bone Condensation and Growth" Development 124: 627-636. asby et al. (Purine Functional Groups in Essential Residues of the Hairpin Ribozyme Required for				
		39.	Catalytic Cleavage of RNA" Biochemi	stry 34: 4068-4076.				
		40.	Griffey (1996) 2'O-Aminopropyl Ribonucleotides: A Zwitterrionic Modification That Enhances The Exonuclease Resistance and Biological Activity of Antisense Oligonucleotides" J. Med. Chem 39:					
	1		5100-5109.	Activity of Antisense Oligon	ucleotides J. Med. Chem 39:			
		41. Gryaznov, Sergei M. and Robert L. Letsinger (1993) "Template Controlled Coupling and						
			Recombination of Oligonucleotide Blo Research 21 (6): 1403-1408.	cks Containing Thiophosphor	yl Groups" Nucleic Acids			
		42. Ha et al. (1996) "A Bilged 1in-4/1in-14 RNA Duplex is Sufficient For Caenorhabditis Elegans 1in						
			Temporal Gradient Formation" Gene a	nd Development 10: 3041-30				
		43.	Hannon (2002) "RNA Interference" Na	nture 418: 244-251.				
	1	44.	Hoke et al. (1991) "Effects of phospho					
	BW		hybridization and antiviral efficacy ver 19 (20): 5743-5748.	sus herpes simplex virus infec	ction", Nucleic Acids Research			
-		45	Hungarian Patent Office Search Report	mailed July 13, 2004, for Hu	ngary patent application no.			
			P0101225, 1 page.					
		46.	International Search Report mailed on		application no.			
-		47	PCT/AU01/00297 filed March 16, 200 International Search Report mailed on	1, 2 pages. November 14, 2002, for PCT	natent application no			
		47.	PCT/AU02/01326 filed September 27,	2002, 4 pages.				
		48.	Jorgensen et al. (1999) "Do Unintende	d Antisense Transcripts Contr	ibute To Sense Cosuppression in			
	BW	40	Plants" TIG 15:11-12. Kennerdell et al. (2000) "Heritage Gen	a Silancing in Drocophila Hei	ng Double Stranded PNA"			
		49.	Nature Biotechnology 18:896-898.	e shelicing in Diosophila Osi	ing Double-Stranded RAVA			
		50.	Kennerdell et al. (1998) "Use of dsRN		nce to Demonstrate that Frizzled			
			and Frizzled 2 Act in the Wingless Patl					
		51.	Kibler et al. (1997) "Double Stranded I Cells" Journal of Virology 71(3): 1992		is in Vaccinia Virus Infected			
		52.	Kitabwalla et al. (2002) "RNA Interfer		t HIV and Beyond", N Engl J			
			Med 347 (17): 1364-1367.	· · · · · · · · · · · · · · · · · · ·				
		53.	Klink et al. (2000) The Efficacy of RN J. Plant Growth Reg. 19: 371-384.	At in the Study of the Plant C	ytoskeleton"			
-		54.	Kowolik (2001) "Locus Control Region	n of the Human CD2 Gene in	a Lentivirus Vector Confers			
	BW	Position-Independent Transgene Expression" Journal of Virology 75 (10): 4641-4648.						
H	EXAMI	MED.		DATE CONSIDERED:				
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			Initial if citation considered, whether or not the citation		a line through the citation if not in			
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BELL NI	M 18	E E		Mailing Date No	ovember/2 2004	
W.		.(3)				
7	TE IDE	55.	Kowolik et al. (2002) "Preferential Tra			
<u> </u>	W		Pseudotyped By Sendai Virus F Protei			
		30.	Kozak (1989) "Circumstances and med eucaryotic mRNAs" Mol. Cell. Biol. 9	D:5134-5142.		
		57.	Kreutzer et al. "Specific Inhibition of Meeting S169.	•		
		58.	Kumar et al. (1998) "Antisense RNA: Eukaryotes" Microbiology and Molecu			
	59. Li et al. (2000) "Double-Stranded RNA Injections Produces Null Phenotype in Zebrafi 217(2):394-405. Erratum in: Dev. Biol. (2000) 220(2):432.				Phenotype in Zebrafish" Dev. Biol.	
		60.	Liebhaber et al. (1992) "Translation in determined by its proximity to the AU	G initiation codon" J. Mol. E		
	•	61.	Lin et al. (1999) "Policing Rogue Gene	es" Nature 402: 128-129.		
		62.	Lingelbach et al. (1988) "An extended mRNA does not block translational ele			
		63.	Lipinski et al. (1997) "Experimental and Computational Approaches to Estimate Solubility and Permeability in Drug Discovery and Development Settings" Advanced Drug Delivery Reviews 23: 3-25.			
		64.	Lisziewicz et al. (1991) "Tat-Regulated Expression" New Biologist 3:82-89.	d Production of Multimerize	ed TAR RNA Inhibits HIV-1 Gene	
	-	65.	Loomis et al. (1991) "Antisense RNA results in a delay in cell-cell adhesion i			
		66.	Ma et al. (1993) "Design and Synthesis Biochemistry 32: 1751-1758.			
		67.	Majumdar et al. (1998) "Targeted Gen Oligonucleotides" Nature Genetics 20:		ipple Helix Forming	
		68.	McManus et al. (2002) "Gene Silencin (10): 737-747.	ig in Mammals By Small Into	erfering RNAs" Nat. Rev. Genet. 3	
		69.	Metzlaff et al. (1997) "RNA-Mediated Petunia" Cell 88:845-854.	RNA Degradation and Chal	Icone Synthase A Silencing in	
		70.	Mikoshiba et al. (1991) "Molecular bio expression of anti-sense RNA in myeli			
		71.	Milhaud et al. (1991) "Free and Liposo Interferon, Interleukin-6, and Cellular"	ome-Encapsulated Double-S	tranded RNAs as Inducers of	
		72.	Montgomery et al. (1998) "Double-Str Silencing and Co-Suppression" TIG 14	randed RNA as a Mediator in		
		73.	Montgomery et al. (1998) "RNA as a 7 in Caenorhabditis Elegans" Proc. Natl.	Target of Double-Stranded R		
E	i BW	74.	Moss et al. (1997) "The Cold Shock D Elegans and is Regulated by the lin-4 F	Oomain Protein LIN-28 Contr		
		· ·	<u> </u>			
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			Mailing Date Novemb	et 2 , 2004 .		
E 10174B	ŢĹ.					
. BW	75.	Ngo et al. (1998) "Double-Stranded RI Natl. Acad. Sci. 95: 14687-14692.	NA Induces mRNA Degradation	in Trypanosoma Brucei" Proc.		
	76.	Nielsen et al. (1997) "A Novel Class o Synthesis of 2',3'-Bridged Monomers	f Conformation Restricted Oligo	nucleotide Analogues:		
	77.	Nikiforov et al. (1992) "Oligodeoxynu	cleotides Containing 4-thiothym	idine and 6-		
		thiodeoxyguanosine as affinity labels f		nuclease and Modification		
	78.	Methylase" Nucleic Acids Research 20 (6): 1209-1214. Okano et al. (1991) "Myelin basic protein gene and the function of antisense RNA in its repression in				
		myelin-deficient mutant mouse" J. Neu	rochem. 56:560-567.	·		
	79.	Paddison et al. (2002) "Short Hairpin F Mammalian Cells" Genes and Develop		ce-Specific Silencing in		
	80.	Pegram et al. (1998) Phase II study of	Receptor-Enhanced Chemosensi	tivity Using Recombinant		
		Humanized Anti-p185 ^{HER2/neu} Monoclo Refractory to Chemotherapy Treatmen	nal HERZ/Neu-Overexpressing : t" Journal of Clinical Oncology	Metastatic Breast Cancer 16 (8): 2659-2671.		
. 81. Pelletier et al. (1985) "Insertion mutagenesis to increase secondary structure within the 5' nonce				cture within the 5' noncoding		
	 	region of a eukaryotic mRNA reduces				
	82.	Peng et al. (2001) "Development of an Levels of Functionally Active Human				
	83.	Piccin, et al. (2001) "Efficient and Her	itable Functional Knock-out of	an Adult Phenotype in		
		Drosophila using a GAL4-Driven Hair	pin RNA Incorporating a Hetero	logous Spacer" Nucleic Acids		
	84.	Research, 29(12) E55:1-5. Plasterk et al. (2000) "The Silence of the silence of	he Genes" Curr. Op. Gen. Dev.	0:562-567.		
	85.	Que et al. (1997) "The Frequency and				
		Transgenes Are Dependent on Transge				
 	86.	Nonsense Codons in the Transgene Co Regalado (2002). "Turning Off Genes				
	80.	Journal: 4 pages.				
	87.	Sarver et al. (1990) "Ribozymes as Pot 1225.	ential Anti-HIV-1 Therapeutics	Agents" Science 247:1222-		
	88.	Schaller (2003) "The Role of Sterols in 175.	Plant Growth and Developmen	t" Prog. Lipid Res. 42:163-		
	89.	Schmidt (2004) "RNA Interference De	tected 20 years ago" Nat. Biotec	hnol. 22: 267-268.		
	90.	Schmidt et al. (1983) "Cycloheximide Aspergillus Flavus" Bio/Technology 1		in a Nontoxigenic Strain of		
	91.	Schmidt et al. (1986) "Viral Influences Microbiol. Biotechnol. 24: 248-252.		ergillus Flavus" Appl		
	92.	Schwartz et al. (2002) "Evidence that s Human RNAi Pathways" Molecular Ce		Primers in the Drosophila and		
	93.	Sharp (1999) "RNAi and Double-Stran		nent 13(2): 139-141.		
BW	94.	Shi et al. (1998) "A CBP/p300 Homolo Caenorhabditis Elegans" Genes and De		tion Pathways in		
EXAM	NER:		DATE CONSIDERED:			
		ial if citation considered, whether or not the citation considered. Include a copy of this form with n		ne through the citation if not in		

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION

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Michael Wayne GRAHAM and Robert Norman RICE

Filing Date December 5, 2000 Group Art Unit 1636

Mailing Date November 2, 2004

		· · · · · · · · · · · · · · · · · · ·
BW	95.	Sinha (1997) "2 Large-Scale Synthesis: Approaches to Large-Scale Synthesis of Oligodeoxynecleotides and their Analogs" Antisense From Technology to Therapy Lab Manual and
1	l	<u>Textbook</u> 6: 30-58.
	96.	Skripkin et al. (1996) "Psoralen Crosslinking Between Human Immunodeficiency Virus Type 1 RNA and Primer tRNA ₃ ^{Lys} Nucleic Acids Research, Vol. 24, No. 3: 509-514.
	97.	Steinecke et al. (1992) "Expression of a Chimeric Ribozyme Gene Results in Endonucleolytic Cleavage of a Target mRNA and a Concomitant Reduction of Gene Expression in vivo" Nucleic Acids Res. 23:2259-2268.
	98.	Strauss (1999). "Candidate Gene Silencers' Found" Science 286: 886.
	99.	Sullenger et al. (1990) "Expression of Chimeric tRNA-Driven Antisense Transcripts Renders NIH 3T3 Cells Highly Resistant to Moloney Murine Leukemia Virus Replication" Mol. Cell. Biol. 10:6512-6523.
	100.	Sullenger et al. (1993) "Tethering Ribozymes to a Retroviral Packaging Signal for Destruction of Viral RNA" Science 262:1566-1569.
•	101.	Svoboda, P. et al. (2001) "RNAi in Mouse Oocytes and Preimplantation Embryos: Effectiveness of Hairpin dsRNA" Biochem Biophys Res Commun. 287(5): 1099-1104.
	102.	Tijsterman et al. (2002) "The Genetics of RNA Silencing" Ann. Rev. Genet. 36:489-519.
	103.	Timmons et al. (1998) "Specific Interference by Ingested dsRNA" Nature 395: 854.
	104.	Uhlmann et al. (1990) "Antisense Oligonucleotides: A New Therapeutic Principle" Chemical Reviews (9) 4: 544-584.
	105.	Watson (1988) "A new revision of the sequence of plasmid pBR322" Gene 70:399-403.
	106.	Weaver et al. (1981) "Introduction by molecular cloning of artifactual inverted sequences at the 5' terminus of the sense strand of bovine parathyroid hormone cDNA" PNAS 78: 4073-4077.
BW	107.	Wess et al. (2003) "Early Days for RNAi" BioCentury, Vol. 11, No. 12: A1-23.
	108	Written Opinion mailed on April 17, 2004, for PCT application no PCI/USU3/UII// filed September
		9, 2003: 7 pages.
BW	109.	Yam et al. (2002) "Design of HIV Vectors for Efficient Gene Delivery into Human Hematopoietic Cells" Molecular Therapy 5 (4): 479-484.
BW	110.	Yamamoto et al. (1997) "Inhibition of Transcription by the TAR RNA of HIV-1 in a Nuclear Extract of HeLa Cells" Nucleic Acids Research 25 (17): 3445-3450.
BW	111.	Yee et al. (2001) "Prospects for Gene Therapy Using HIV-Based Vectors" Somatic Cell and Molecular Genetics, Vol. 26, Nos. 1/6:159-173.
BW	112.	Zhao et al. (1993) "Generating Loss-of-Function Phenotype of the Fushi Tarazu Gene with a Targeter Ribozyme in Drosophila" Nature 365:448-451.

EXAMINER:	/Brian Whiteman/	DATE CONSIDERED:	06/20/2006

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Complete if Known Substitute for form 1449/PTO Application Number 09/646,807 INFORMATION DISCLOSURE Filing Date December 5, 2000 STATEMENT BY APPLICANT First Named Inventor Michael W. GRAHAM Art Unit (Use as many sheets as necessary) Examiner Name D. Gullivan-546322000321 Sheet 1 1 Attorney Docket Number of

	U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
Initials*	No.1	Number-Kind Code ² (# known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	
BW	AA	US 4,766,072	08-23-1988	Jendrisak et al.		
1	AB	US 2003/0056235 A1	03-20-2003	Fire et al.		
	L	with amendments		_		
	AC	US 2004/0064842 A1	04-01-2004	Graham et al.		
	AD	US 2004/0237145 A1	11-25-2004	Graham et al.		
	AE	US 2003/0159161 A1	08-21-2003	Graham et al.		
	AF	US 2004/0180439 A1	09-16-2004	Graham et al.		
TOTAL	AG	US 2004/0266005 A1	12-30-2004	Graham et al.		

	FOREIGN PATENT DOCUMENTS					
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,	
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BW	ВА	WO 97/44450	11-27-1997			

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NON PATENT LITERATURE DOCUMENTS				
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	U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (il known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BW	AA	US 5,578,716	11-26-1996	Szyf et al.	
BW	AB	US 5,998,383	12-07-1999	Wright et al.	

	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.'	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7°	
BW	ВА	WO 95/15378	06-08-1995			一	

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
BW	CA	Agrawal et al. (2000) "Antisense therapeutics: is it as simple as complementary base recognition?" Molecular Medicine Today 6: 72-81.	
	СВ	Cameron et al. (1994) "Multiple Domains in a Ribozyme Construct Confer Increased Suppressive Activity in Monkey Cells" Antisense Research and Development 4: 87-94.	
	CC	Harborth et al. (2003) "Sequence, Chemical, and Structural Variation of Small Interfering RNAs and SHort Hairpin RNAs and the Effect on Mammalian Gene Silencing" Antisense and Nucleic Acid Drug Development 13: 83-105.	
	CD	Holen et al. (2002) "Positional effects of short interfering RNAs targeting the human coagulation trigger Tissue Factor" Nucleic Acids Research 30 (8): 1757-1766.	
	CE	Jen et al. (2000) "Suppression of Gene Expression by Targeted Disruption of Messenger RNA: Available Options and Current Strategies" Stem Cells 18: 307-319.	
	CF	McManus et al. (2002) "Gene Silencing using micro-RNA designed hairpins" RNA 8: 842-850.	
	CG	McManus et al. (2002) "Small Interfering RNA-Mediated Gene Silencing in T Lymphocytes" Journal of Immunology 169: 5754-5760.	
	СН	Opalinska et al. (2002) "Nucleic-Acid Therapeutics: Basic Principles and Recent Applications" Nature Reviews 1: 503-514.	
BW	CI	Randall et al. (2003) "Clearance of replicating hepatitis C virus replicon RNAs in cell culture by small interfering RNAs" PNAS 100 (1): 235-240.	

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Examinar		Date	1
	/Brian Whiteman/		06/20/2006
Signature	/ == = uni	Considered	06/20/2006

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449/PTO

(Use as many sheets as necessary)

1

Complete If Known				
Application Number	09/646,807			
Filing Date	December 5, 2000			
First Named Inventor	Michael W. GRAHAM			
Art Unit	1036 635			
Examiner Name	D. Suilvan			
Attorney Docket Number	546322000321			

	U.S. PATENT DOCUMENTS					
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
Initials*	No.		Number-Kind Code ² (if known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear

	FOREIGN PATENT DOCUMENTS						
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,		
Initials*	No.	Country Code ³ -Number ⁴ -Kind Code ⁶ (# known)	Date MM-DD-YYYY	A	Where Relevant Passages or Relevant Figures Appear	₽¢	
DW.	1.	WO-99/09045	02-25-1999	Somagenics, Inc.			

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	2	Furopean Search Report mailed June 3, 2005, for European patent	
		application no. 04015041, filed March 19, 1999, 4 pages	
BW	3.	BASS, Brenda L. (May 24, 2001) "RNA Interference: The Short Answer," Nature, 411:428-429	
BW	4. ·	HARBORTH, Jens et al. (2001) "Identification of Essential Genes in Cultured Mammalian Cells Using Small Interfering RNAs," Journal of Cell Science, 114:4557-4565	
BW	5.	MANCHE, Lisa et al. (Nov. 1992) "Interactions Between Double- Stranded RNA Regulators and the Protein Kinase DAI," Molecular and Cellular Biology, 12(11):5238-5248	
	6.	PADDISON, Patrick J. et al. (July 2002) "RNA Interference: The New	
BW		Somatic Cell Genetics?" Cancer Cell, 2:17-23	

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of 1

	Complete if Known	
Application Number	09/646,807	
Filing Date	December 5, 2000	
First Named Inventor	Michael W. Graham	
Art Unit	1635	
Examiner Name	Sean McGarry Whyt cman	
Attorney Docket Number	BENI/0022.P1	

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ВW	C1	Stam et al. (1997) "Post-transcriptional silencing of chalcone synthase in <i>Petunia</i> by inverted transgene repeats" The Plant Journal 12(1): 63-82		
	C2	Australian Written Opinion for S9200205122-5, dated October 24, 2005 (BENI/6022:00)		
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